SANTA CRUZ BIOTECHNOLOGY, INC.

SPATA13 siRNA (h): sc-76549

BACKGROUND

SPATA13 (spermatogenesis associated 13), also known as ASEF2, is a 652 amino acid protein that may be involved in the regulation of spermatogenesis. SPATA13 contains a DH (DBL-homology) domain and a PH (pleckstrin-homology) domain, both of which are found in a variety of proteins that are involved in gene expression, membrane trafficking, growth factor signaling or cellular transformation. The gene encoding SPATA13 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is a deadly syndrome associated with chromosome 13. The few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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4. Kawai, T., et al. 1999. Duet is a novel serine/threonine kinase with Dbl-homology (DH) and Pleckstrin-Homology (PH) domains. Gene 227: 249-255.
5. Liu, B., et al. 2005. Cloning and expression analysis of gonadogenesis-associated gene SPATA4 from rainbow trout *(Oncorhynchus mykiss).* J. Biochem. Mol. Biol. 38: 206-210.
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7. Xie, M.C., et al. 2007. Cloning and characterization of chicken SPATA4 gene and analysis of its specific expression. Mol. Cell. Biochem. 306: 79-85.
8. Becker, J.A., et al. 2008. Transcriptome analysis identifies genes with enriched expression in the mouse central extended amygdala. Neuroscience 156: 950-965.

CHROMOSOMAL LOCATION

Genetic locus: SPATA13 (human) mapping to 13q12.12.

PRODUCT

SPATA13 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SPATA13 shRNA Plasmid (h): sc-76549-SH and SPATA13 shRNA (h) Lentiviral Particles: sc-76549-V as alternate gene silencing products.

For independent verification of SPATA13 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76549A, sc-76549B and sc-76549C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SPATA13 siRNA (h) is recommended for the inhibition of SPATA13 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SPATA13 gene expression knockdown using RT-PCR Primer: SPATA13 (h)-PR: sc-76549-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.